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The value of 100% retrospective peer review in a forensic pathology practice

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ABSTRACT

Peer review in forensic pathology practice has become an important cornerstone of continuous quality improvement. Although there are several components to an effective and transparent peer review process, one of the most essential is the review of completed reports.

The autopsy report may be reviewed prospectively (report reviewed before sign out) or retrospectively (report reviewed after sign out). Prospective reviews are more likely to be performed on criminal or criminally suspicious cases, pediatric and SIDS deaths and high profile cases.

Retrospective reviews on the other hand are performed on a proportion of all other signed-out routine medico-legal cases. The actual percentage varies by jurisdiction since there are no agreed minimum standards. Manpower and workload factors appear to be critical to determining what percentage of cases are reviewed retrospectively.

The objective of this report is to present a mechanism by which a 100% retrospective review policy has been implemented, how it integrates with quality management protocols, the outcomes of the reviews and what challenges remain to improve compliance with key quality indicators especially turn around time (TAT) statistics.

1. Introduction

Peer review has become an important aspect of the modern practice of forensic pathology and is incorporated into quality improvement protocols in many jurisdictions.[1–5] This may in part be due to a growing acceptance within the forensic community that modern forensic pathologists best serve the public interest by practicing in self-regulating groups. Thus in the interest of continual quality improvement, data and evidence collected at autopsy must be recorded and retained in a manner that can be reviewed by another pathologist. The expectation is that the reviewing pathologist will come to a similar logical conclusion or at least an informed decision based on an ability to re-examine all the information. The autopsy pathologist must be committed to placing the reviewer in the same position as he or she was at the time of the autopsy. In some North American jurisdictions, a documented peer review process is part of the requirement to obtain accreditation, such as the one offered by the National Association of Medical Examiners (NAME).[6] In Canada, the United Kingdom and Australia peer review is either part of a code of practice or part of an accreditation standard.[1,3,7]

2. Types and mechanisms of peer review

Peer review of autopsy reports may be prospective, (report is reviewed by another pathologist prior to sign out) or retrospective (report is reviewed by another pathologist after sign out). The advantage of prospective reviews is that any errors in the report are intercepted and corrected before the case is signed out and released to the coroner or legal system. In our jurisdiction prospective reviews are mandatory in cases of criminal or criminally suspicious deaths and pediatric deaths i.e 100% review.

On the other hand retrospective reviews are generally performed on non-criminal or non-criminally suspicious cases. It is in the nature of these types of cases that different jurisdictions set different requirements of what minimum percentage of reports must be reviewed to meet guidelines for continual quality improvement. In our jurisdiction we have established a policy goal of 100% retrospective review within 1 year of sign out on all cases that were not prospectively reviewed. This is because a similarly thorough prospective review will strain existing manpower resources. The time frame of one year was selected to accommodate lengthy turn around times. Retrospective reviews are performed principally by the autopsy division's lead pathologist and incorporate the "Autopsy Report Review Checklist" developed by NAME because it is comprehensive, flexible and easily followed. See Fig. 1.

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Peer Review

Case Number:

Reviewer:

Review Date:

(Note: The following are indicated as Satisfactory or Unsatisfactory)

1. Were descriptions of clothing and identifying marks and scars appropriate for the complexity of the case? S / U
2. Was the external description (without injuries) appropriately case specific? S / U
3. Were descriptions of injury, if present, appropriate for the complexity of the case, and consistent with diagrams and photographs? S / U
4. Were descriptions of natural disease, if present, appropriate for the complexity of the case? S / U
5. Is the text clear and understandable without significant typographical and /or grammatical errors? S / U
6. Do the pathological diagnoses accurately summarize the significant conditions described in the text? Y / N
7. Is the opinion logical and complete? S / U
8. Is the opinion understandable by the non-medical reader? S / U
9. Are all significant issues addressed in the opinion? S / U
10. Was the autopsy report completed in a timely fashion given the nature of the case? S / U

Specific comments:

Signature of reviewer:

Fig. 1. NAME autopsy review checklist.

In addition to completion of the NAME checklist, the retrospective peer review/feedback mechanism also includes informal confidential feedback to the pathologist on each autopsy report they have completed as well as regular quality improvement group meetings to identify and address common areas for improvement. The common areas for improvement were then developed into recommendations for quality improvement i.e quality indicators as follows:

1 Expand on details on the clinical/circumstances of death summary: The summary should include pertinent details of the circumstances of death, especially in child and SIDS deaths. This information may prove critical to the determination of the manner of death.
2 Document in detail the chain of custody for all material and evidence: Anything removed from the body, including clothing, jewelery, pictures, body fluid and tissue including its ultimate disposition must be documented. Documentation serves two purposes: first it ensures a chain of custody for cases that go to court. Secondly, although our service population is generally trusting of medical staff, it provides written confirmation that all decedents valuables/possessions are properly accounted for and disproves the rare accusations of theft attributed to morgue staff.
3 Emphasize pertinent negative findings: It is essential to demonstrate to a reviewer that all reasonable possibilities have been considered before a final ruling is issued on the cause of death. Also any special procedures performed during the autopsy must be thoroughly documented including photographically if indicated.
4 Clarify and document indications for organ retention or subspecialist referral: Our jurisdiction has not been plagued by complaints or scandals regarding organ retention and we feel it is important to maintain the publics trust by being as open and transparent as possible. Where there has been no prior discussion, the coroner must be notified verbally and in writing (email) of all decisions to retain or refer organs for further examination. This gives them time to consult with the next of kin

and register any objections before the decedents body is returned to them.

5 Formulate more precise cause of death statements: Although there is no one best method to write a cause of death statement, unambiguous statements facilitate the coroners ability to more accurately report cause and manner of death. This can be achieved by using the NAME protocol on formulating cause of death statements as a guideline.[8]

6 Improve compliance with turn around time (TAT) standard: Our group has agreed to the standard that 90 percent of cases must be completed within 90 days. Measurement of TAT is monitored as a key quality indicator within the peer review process, since this has been identified as the area with the greatest need for improvement.

3. Outcomes

Over the twelve months since the introduction of the retrospective peer review policy there has been a greater and more consistent adherence to the recommendations in 1–5 above. The reviews are more rapid (from 1 h to approximately 45 min) and there is significantly less frequent flagging for review of most of the quality indicators. The positive response of the pathologist group to the reviews has been helpful. In general the group believes that the reviews have improved their practice and reporting.

The peer review policy has also lead to a group inclination to harmonize report style with minor individual variations, leading to the development of a more-or-less common document template ("standardized reporting format") for all autopsies, with options to enter data for individual measurements and observations. The standardized reporting format represents improvements in quality through process control and document management.[9] The standardized format will also facilitate the process of one pathologist testifying on behalf of another, should the particular autopsy pathologist become incapacitated or unavailable.

4. Challenges

While other areas have shown significant improvement, maintaining compliance with the TAT standard remains problematic. Pathologists in larger jurisdictions struggle with this as well.[3] In our practice, the major obstacles appear to be the pathologist's additional obligations to surgical pathology and other administrative or teaching responsibilities. The situation is further complicated by a shortage of staff. Just as in surgical pathology, monitoring and maintaining quality is staff and labor intensive. The bottom line is that the demands of grieving families complete with the demands of busy surgeons and patients with pressing medical problems. As most chief medical examiners working with shrinking budgets know, in scenarios where the deceased compete with the living for scarce resources, the deceased are often at a distinct disadvantage.

Despite these challenges, retrospective peer review represents a "defined strategy for continual improvement" for three reasons. First it identifies opportunities for improvement through the use of quality indicators. Secondly it enables the performance of internal audits of autopsy reports and the comparison of these reports within an accreditation standard (NAME).[6] Any gaps identified can then be analyzed, corrected and measured for improvement through the ongoing peer review process. For example, the measurement and monitoring of the problematic TAT as a key quality indicator is directly linked to staff shortages and the pathologist's additional workload. Since workloads are unlikely to fall in the foreseeable future, the problem may have to be addressed by hiring more staff, creating a dedicated forensic service staffed by pathologists with exclusive commitment to forensic pathology or contracting with other jurisdictions to provide backup service.

Thirdly in addition to observing international standards for quality management systems, ongoing competence assessment of an organization's personnel is also essential to continual quality improvement within (local and national) regulatory and accreditation agencies.[10] Documented retrospective peer review is evidence that this requirement is met.

5. Conclusion

Quality improvement through peer review is required to maintain the integrity of a death investigation system. It ensures transparency and maintains public confidence. Even though the reviews may be limited to the reports only, it is clear that in addition to a robust protocol for prospective peer review in selected cases, retrospective peer review of all other cases with constructive individual feedback and group discussion should be encouraged since it does lead to an improvement in the quality of autopsy reports. Certainly 100% retrospective reviews will not be possible in all practices, especially those that are large, busy, understaffed or underfunded. Although additional studies to evaluate the effect of different percentages of autopsy report review on quality would be instructive, a high rate of retrospective review facilitates the development and adherence to common standards and formats. It also improves group performance and accountability, and creates opportunities to address systemic issues that may limit compliance with quality indicators.

Ethical approval

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Conflict of interest

None declared.

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